Name:_____ Date:_____ Period:_____

Unit 1 Practice Test

Variables and Translations. Write an algebraic expression for each phrase.

a. the sum of 5 and three times a number _____

b. 8 minus the product of 9 and a number _____

Define variables and write an equation to model the following situation.

a. The total cost of gas is the number of gallons times $3.79.

b. The perimeter of a regular octagon is 8 times the length of one side.

rGEMDAS. Simplify the following expressions.

$2[(13 - 7)^2 \div 3]$	$12 + 3[18 - 5(16 - 13)]$
$36 - (4 + 5 \bullet 4)$	$9 + [4 - (10 - 9)^2]^3$

Evaluate Expressions. Evaluate each expression. Use a = 3 b = -2 c = 1	
$2a^2 - (4b + c)$	$9(a + 2b) + c$
$4a - b^2$	$\frac{2a + b}{2}$

Operations with Integers. Simplify.		
| -9 | = _____	5 + | 5 – 9 | = _____	5|6 – 7| + 6 = _____

Distributive Property. Simplify. Use the distributive property in reverse.	
-4(2x + 6)	15x + 3 = _____
27x – 9 = _____	8 – (4x + 3) -10x + 6

Properties of Numbers. Simplify the expression. Justify each step.	
3(2x – 4) + 2x	**Expression**

What are the four properties that allow us to solve equations?

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